



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/558,727	11/28/2005	Hiroyuki Kanda	20241/0203623-US0	7063
7278	7590	03/17/2009	EXAMINER	
DARBY & DARBY P.C. P.O. BOX 770 Church Street Station New York, NY 10008-0770			SPEER, TIMOTHY M	
			ART UNIT	PAPER NUMBER
			1794	
			MAIL DATE	DELIVERY MODE
			03/17/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/558,727	<b>Applicant(s)</b> KANDA ET AL.	
	<b>Examiner</b> TIMOTHY M. SPEER	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/13/09</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 01/13/09 has been considered and made of record.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukherjee (USPN 4,959,257) for reasons of record in the Office Action dated 09/03/08.
4. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (USPN 7,309,531) for reasons of record in the Office Action dated 09/03/08.

### ***Response to Arguments***

5. Applicant's arguments filed 12/02/08 have been fully considered but they are not persuasive. With respect to the applied prior art, applicant asserts that both Mukherjee and Suzuki teach away from the presently claimed thickness of 2 to 9 nm. This argument has been fully considered, but is not found to be persuasive.
6. With respect to Mukherjee, applicant asserts that Mukherjee teaches thicknesses of 10 to 60 nm and, thus, teaches away from the presently claimed range. This is not persuasive, since Mukherjee simply states that "[t]ypically the sputtered layer has a thickness of 10 to 200 nm" (col. 2, lines 38-39). Thus, the disclosure of Mukherjee is merely illustrative and not limiting.

Art Unit: 1794

Clearly, there is no disclosure that teaches away from films having thicknesses outside of the "typical" range. Accordingly, applicant's argument is not persuasive.

7. In the present case, although the claimed range and the prior art range do not overlap, the ranges are close enough (9 nm presently claimed and "typically" 10nm disclosed in the prior art) that one skilled in the art would have expected them to have the same properties. Thus, it is the Examiner's position that the present claims are obvious in view of Mukherjee.

8. Regarding Suzuki, applicant asserts that Suzuki teaches away from the claimed range of 2 to 9 nm, since Suzuki teaches a thickness of 10 to 500 nm. Suzuki teaches that the thickness is "preferably 10 to 500 nm" (col. 10 , line 53). Thus, the disclosure of the 10 nm value is merely illustrative and not limiting. By disclosing the range as "preferable" Suzuki clearly envisages thicknesses outside of the disclosed range. This disclosure in no way constitutes a teaching away from the presently claimed range. Accordingly, applicant's argument is not persuasive.

9. In the present case, although the claimed range and the prior art range do not overlap, the ranges are close enough (9 nm presently claimed and "preferably" 10 disclosed in the prior art) that one skilled in the art would have expected them to have the same properties. Thus, it is the Examiner's position that the present claims are obvious in view of Suzuki.

10. In light of the above, applicant's arguments filed 12/02/08 have been fully considered but are not found to be persuasive.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY M. SPEER whose telephone number is (571)272-8385. The examiner can normally be reached on M-F.

Art Unit: 1794

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L. Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy M. Speer/  
Primary Examiner  
Art Unit 1794